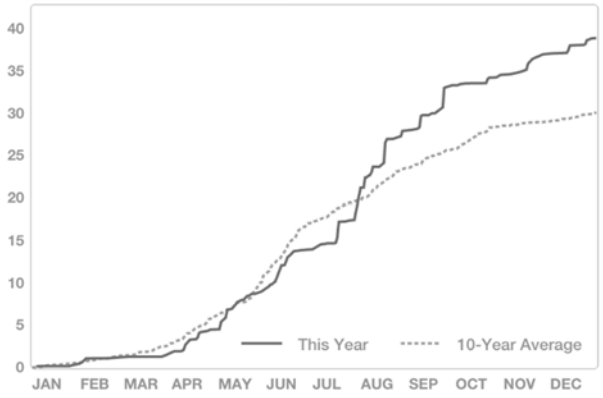
Nebraska On-Farm Research Network

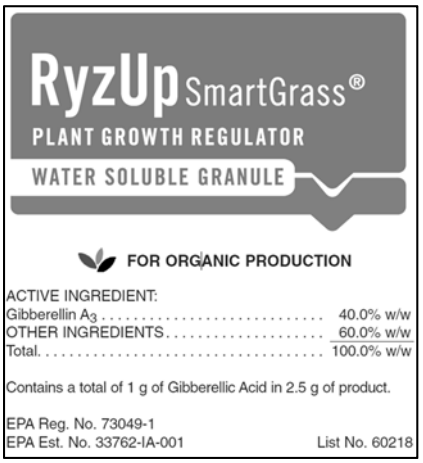
RyzUp SmartGrass® applied with Herbicides to Soybeans at Unifoliate Growth Stage

Study ID: 220125201501
County: Nance
Soil Type: Belfore silty clay loam; Fillmore silt loam;
Planting Date: 5/18/15
Harvest Date: 10/13/15
Population: 156,000
Row Spacing (in.)
Hybrid: Syngenta 24K2
Reps: 4
Previous Crop: Corn
Tillage: No-Till
Seed Treatment: CruiserMax - Vibrance
Fertilizer: Preplant CVA Mez product broadcast; 3 gal/ac CVA starter in-furrow at planting

Note: Field variation was noted, as higher areas of field were much ahead of rest of field, and yields varied widely. Low areas had standing water from time to time from the very moist spring/summer experienced.
Irrigation: Pivot, Total: Unknown
Rainfall (in.):



Introduction: This study is looking at the impact of adding RyzUp SmartGrass® to a post herbicide application. The check treatment was 44 oz/ac Glyphosate 41 Plus and ClassAct NG. RyzUp SmartGrass® was evaluated by adding it to these two products. RyzUp SmartGrass® active ingredients are shown at right. All products were applied on June 8 at 15 gpa at the unifoliate growth stage. RyzUp SmartGrass® is not currently labeled for use in soybeans, however there is a tolerance for the active ingredient.



Product information from:
http://www.valent.com/agriculture/products/ryzupsmartgrass/label-msds.cfm

Results:	**Height (in.)**					
	June 15	**June 24**	**June 30**	**July 9**	**July 17**	**July 27**
Check	8.7 B*	5.6 B	6.7 B	11.6 A	15.2 A	25.8 A
RyzUp SmartGrass (0.3 oz)	12.2 A	6.4 A	7.8 A	12.1 A	15.7 A	25.5 A
P-Value	0.0022	0.0993	0.0783	0.4969	0.6104	0.8312

	Trifoliate Nodes					
	June 15	**June 24**	**June 30**	**July 9**	**July 17**	**July 27**
Check	2 A	3 A	5 A	7 A	9 A	12 A
RyzUp SmartGrass (0.3 oz)	2 A	4 A	5 A	7 A	9 A	13 A
P-Value	0.7237	0.5137	0.4863	0.9236	0.5985	0.9206

	Cotyledon Node Branches (%)			Unifoliate Node Branches (%)		
	July 9	July 17	July 27	July 9	July 17	July 27
Check	9.5 A	1.8 A	2.1 A	22.5 B	26.8 B	18.8 B
RyzUp SmartGrass (0.3 oz)	9.0 A	4.0 A	3.3 A	41.5 A	49.3 A	52.1 A
P-Value	0.824	0.3093	0.6376	0.0202	0.0274	0.0065

	Pods/plant July 27	Yield (bu/ac)†	Protein (%)	Oil (%)	Weight (grams/ 100 seeds)	Marginal Net Return ($/ac)‡
Check	38 B	63 A	37.5 A	18.9 A	16.4 A	560.70
RyzUp SmartGrass (0.3 oz)	42 A	64 A	37.6 A	18.9 A	16.0 B	562.60
P-Value	0.0364	0.9517	0.8601	0.8311	0.0256	N/A

†Bushels per acre corrected to 13% moisture.

*Values with the same letter are not significantly different at a 90% confidence level.

‡Net Return based on $8.90/bu soybeans and $7/acre RyzUp cost. No application cost is added as this is expected to be applied with a post application of herbicide.

Summary: The RyzUp SmartGrass® treatment had significantly taller plants on June 15, 24, and 30. The RyzUp SmartGrass® treatment also had significantly more branching at the unifoliate nodes on July 9, 17, and 27. On July 27, there were significantly more pods/plant for the RyzUp SmartGrass® treatment. At harvest, there was no difference in yield, % protein, or % oil between the two treatments. The RyzUp SmartGrass® treatment had a lower seed weight than the untreated check. Due to the lack of yield benefit, the cost of application was not recovered.

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